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Ueber die Helligkeit einmaliger und periodisch wiederkehrender Lichtreize. HENRY J. WATT. *Ibid.,* S. 591.

Using the above described apparatus, the author has compared the brightness of a Talbot field with the brightness of a stimulus of the same area, intensity and duration as a single one of the stimuli whose succession produced the Talbot field. Five such fields were used, in which the durations of the stimuli were related as 20:40:60:80:100, and the rate of succession was adjusted until all trace of flicker had disappeared. The author notes that all obvious flicker may have disappeared while the luminous field still appears slightly agitated. The subjects were cautioned to make the disappearance of the last trace of movement or flutter from the field their criterion, when the critical period was being measured. The critical period varied widely in the five subjects, as, for instance, from 6 to 9 σ in one of the Talbot fields and in another from 40 to 63 σ, but the subject having the least critical period for one of the fields had also the least for the other four that were used: and so for the subject that had the greatest critical period; and so on.

The author confirms previous experiments of Marbe, that decrease in the difference between the illuminated and the non-illuminated phases, as likewise a decrease in the average intensity of light, shortens the critical period. The subjects show no uniformity as regards the relative intensities of the single stimulus and of the Talbot field produced by a succession of similar stimuli. Two subjects found the former to be darker, and one lighter, than the Talbot field; while one subject found the two equal in intensity. It might be expected that the subject whose critical period was least would be apt to find the single stimulus darker than the constant fields, since, as the apparatus was arranged, the duration of the luminous phase decreased along with the critical period. "As the rate of rotation of the disk is increased the duration of Hess's field [single stimulus] is reduced, while the intensity of Talbot's field naturally remains the same as soon as the critical period has been attained. Wherefore it would be eventually possible [by increasing the rate] to elicit the judgment 'darker' from all the subjects." Yet this explanation is not possible because the one subject who found the single stimulus brighter than the Talbot field was the one whose critical period was next to the shortest. The author rightly finds that this lack of simple relation between the brightnesses of the two fields is no occasion for surprise; for in view of the great individual differences as regards critical period, it is natural enough that the sensation curve yielded by a single stimulus should vary just as widely. This curve and the critical period depend on different combinations of physiological factors.

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Aufmerksamkeit und Zeitverschiebung in der Auffassung disparater Sinnesreize. WILHELM PETERS. *Zeitschrift für Psychologie und Physiologie der Sinnesorgane,* Bd. 39, Heft 6, pp. 401–428.

Peters repeats the experiment of Exner and Miss Hamlin upon the